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St. Bartholomew's Hospital Journal,

AUGUST 14th, 1894.

"Æquam memento rebus in arduis
Servare mentem."—*Horace, Book iii.*

T would be neither fitting nor proper for us to pass over without special comment such an occurrence as the recovery of the Athletic Shield.

We say *recovery* of the Shield, for when Guy's robbed us of it in 1892 we had come to look upon it as a permanent ornament to the Bart.'s Library. To men who were students at the Hospital during the seven years between 1885 and 1892 the Shield constituted an important feature in any mental picture of the Library, and it seemed difficult to realise that another hospital had actually taken it, when in 1892 it disappeared from its wonted position.

We cannot but admit, however, that the result of the contest in 1894 came as a surprise to most of us, and we should be guilty of unsportsmanlike conduct were we to make no reference to the fact that H. T. Bell, the Guy's champion, had injured his foot a short time previously. To this cause, although it does not seem to have interfered with his running in the "hundred," and did not prevent his winning the "long jump," is perhaps attributable the fact that in the "220" and the "high jump" he was beaten by men whose performances did not equal his own in previous years.

Reflection upon this recalls to our mind the recollection that in recent years fickle Fortune's hand has been tightly closed upon her favours as far as Bart.'s has been concerned, and we cannot but remember, amongst other things, that in 1892 she was particularly unkind to us in the Athletic Sports, illness preventing several of our best men from competing; that in the season 1890-91, our Association Team, having played into the final for the Senior London Cup, a unique record, we believe, for a hospital team, was beaten by St. Thomas' in the final for the Inter-Hospital Challenge Cup; and that in 1892-93 accident and illness robbed our Rugby Team of some of its best players, and thus prevented our making even a good fight for the Cup. But enough of regrets. We congratulate those men who represented the Hospital in this year's sports, and, being many of them Junior men, we trust that in future years they will do the Hospital equally good service.

We would point out to them, however, that this can only be done by consistent training, and that no cause of failure is more potent than over-confidence of success.

At the same time, even the winning of the shield does not wipe out the disgrace—for disgrace indeed it is—that in this large hospital, with so many students, we do not at present hold either of the Football Challenge Cups, also that though we have indeed never yet lost the Water Polo Cup, we are seldom, if ever, visited by the Cricket, Tennis, Rowing, or Rifle Cups.

Now that we have a good ground of our own, easy of access, and with an excellent pavilion in course of erection, we hope that the first step has been taken towards the remedy of some, at least, of these evils; and we trust that when once our Clubs have taken up their abode at Winchmore Hill they will be more generally supported, that such a condition of things will obtain that no man will think of playing for an outside club when he is wanted by the Hospital, and that Bart.'s will take that position in the athletic world which is suited to so large a collection of men, and to the oldest Hospital in London.

Clinical Lecture on the Radical Cure of Inguinal Hernia.

With a detailed description of the Operations and of the after-treatment of the Patients, by

H. T. BUTLIN, F.R.C.S.



ENTLEMEN,—A year and a-half ago I gave a lecture on the radical treatment of hernia, in which I advocated the performance of the operation, and dealt with the subject in general terms. At that time I suggested that these operations have been gradually growing in favour in the Hospital, and ventured to predict that as many operations would be performed during the year 1893 as had been performed in the ten years from 1882 to 1891 inclusive.

That prediction has been more than fulfilled, for Mr. Berry tells me that 102 operations for the radical cure were performed during the year 1893, compared with 50 operations during the ten years, and during the year in which my lecture was delivered (1892) 40 operations were performed; so that the last two years have furnished 142 of these operations, to compare with 50 in the previous ten years. These operations have occurred in the practice of most of the surgeons and assistant-surgeons, although a great many of them were performed by Mr. Lockwood and myself.

As operations for the radical cure of hernia are likely to take a very large place in the work of the future, it is very important that they should be performed with the best prospect of success. To ensure this, it is desirable not only to select a good operation from among the many which have been designed, but to carry out every detail of it with the greatest care and thoroughness. My lecture to-day has for its object to give you a detailed description of the operations I am in the habit of performing for the cure of inguinal hernia, and the conditions which I believe to be conducive, if not essential, to success.

The operation which I have most frequently performed is that which is called after Professor Bassini, of the University of Padua. So far as I am aware, it does not differ largely from that practised by the French surgeon, M. Lucas-Championnière; but I prefer Bassini's operation, because the description of it is very clear, and the surgeon knows what is intended to be done, and how to do it.

It is divided into four stages, and I shall give the description according to the translation of Professor Bassini's paper, which I made for myself.

FIRST STAGE.—The skin is incised along the whole length of the inguinal canal, and the hæmorrhage is arrested.

SECOND STAGE.—The aponeurosis of the external oblique is divided from the external to the situation of the internal ring, the edges of the incision are turned, one up, the other down, the cord and the neck of the sac are isolated and raised up *in toto*. The forefinger is passed beneath these structures, and the neck of the sac is isolated from the cord up to the opening of the hernia. This isolation of the neck of the sac must be carried up to the iliac fossa—that is up beyond the mouth of the sac itself. The body and base of the sac are then isolated, the sac turned outwards, opened, and its contents examined. The contents, with the exception of thickened omentum (which is removed), are reduced, the mouth of the sac is closed, and the part beyond the ligature is cut away.

THIRD STAGE.—The cord is lightly drawn up on to the abdominal wall and, if necessary, the testis with it. The lower margin of the incision in the aponeurosis of the external oblique is turned downwards, and its under aspect cleared until the posterior margin of Poupart's ligament is displayed, which must be cleared as far up as half-an-inch above the point at which the cord issues from the pelvis. Then, the outer border of the rectus abdominis and the three-fold layer (formed by the internal oblique, the transversalis muscle, and the transversalis fascia) are separated from the aponeurosis of the external oblique in front, and from the sub-peritoneal fat behind, until this three-fold layer can be easily approached to the posterior margin of Poupart's ligament. The three-fold layer is fastened to the posterior margin of Poupart's ligament over a length of about three inches outwards from the spine of the pubes, so as to push the cord a little further up than natural towards the anterior superior spine of the ilium. For this fastening, single thick catgut sutures are best, and they should be inserted through the three-fold layer at least an inch above its lower margin, so as to have a good grip of the muscle. The two sutures nearest to the spine of the pubes are made to take in the outer border of the rectus abdominis muscle.

FOURTH STAGE.—The cord and testis are replaced. The edges of

the incision in the aponeurosis of the external oblique are united, and so far down as to diminish the size of the external ring; and the skin incision is also closed.

Such is the operation of Bassini, a somewhat severe proceeding, but well-designed and likely to be successful, if it is carried out thoroughly in suitable cases. I should probably have continued to treat almost all patients on whom I operated for the cure of inguinal hernia, by this method, had I not been so fortunate as to see a series of cases which had been treated by Mr. Silcock very successfully by a less severe operation. Mr. Silcock did not describe his operation in detail, but spoke of it as a slight modification of the operation of Lucas-Championnière. I could not, however, find much resemblance, in the short description he gave, to that of Championnière. It seems to be adapted for cases in which the patient is young, the hernia not large, and the parts in good condition. In fact, for those cases of inguinal hernia which are most favourable for an operation.

As I have performed it, this operation is as follows:—

The situation of the internal ring and the inguinal canal for a part of its distance downwards are exposed.

The sac is found and separated from the structures of the cord, and the separation is carried up to the point where the sac joins the parietal peritoneum.

The sac is opened and its contents are reduced or treated in the same way as in Bassini. The sac is then twisted well up to the peritoneum, a double suture is passed through its twisted neck, and the neck is tied. In order to maintain the twist, I pass one end of one of the two ligatures (for the neck is tied like the stump of an ovarian tumour) up through the twisted sac for a distance of about two-thirds of an inch, this end is then passed through the three-fold layer (described above); the other end of the same ligature is passed through the same layer at another point, and the two ends of the ligature are tied together, so as to draw the stump of the sac upwards and outwards, that is, in a direction contrary to that which it occupied in the inguinal canal.

No attempt is made to re-construct the wall of the inguinal canal. The wounds in the aponeurosis of the external oblique and in the skin are closed, and the operation is concluded.

Whether Bassini or the twisting operation is performed, it is exceedingly important that every care should be taken to avoid the occurrence of suppurative, not only because convalescence is rendered much slower by it, but because it is generally thought that recurrence of the disease is much more likely to take place if there is deep-seated suppuration. With this in view, the operation is performed with every antiseptic precaution, and I know no operation which affords so good a test of a method as this operation for the radical cure of inguinal hernia. The least want of care is almost certain to be repaid by suppuration, more or less profound and profuse.

Preparation of Patient, &c.—The bowels are cleared as usual before all operations. The whole of the pubic region and scrotum is carefully shaved on the day previous to the operation, the parts are then scrubbed with soft soap and water, afterwards washed with ether, then with a solution of biniodide of mercury (1 in 500). The region of the wound is covered with carbolic gauze 5% soaked in a solution of biniodide of mercury (1 in 4,000), which is kept on until the operation.

Only three people touch the wound or instruments: the operator, his assistant, and one dresser. Their hands are scrubbed with warm water and soap, after the nails have been cut and cleansed, and are then placed for rather longer than a minute in a solution of the biniodide (1 in 500). The dresser uses forceps and scissors, and scarcely ever needs to touch either the ligatures or instruments with his hands. And, during the operation, the assistant rarely puts his fingers into the wound. The penis of the patient is wrapped round with blue gauze.

All the instruments are boiled, then placed in a solution of carbolic acid (1 in 60).

Sutures.—I use almost invariably catgut, which is prepared by my house-surgeons. It is readily absorbed and, according to its thickness, requires from five to ten days or a fortnight for its complete absorption. For the ligature of the neck of the sac medium-sized catgut suffices, unless the sac is twisted and sewn up beneath the transversalis fascia, when the thickest catgut is used. For the re-construction of the wall of the inguinal canal, very thick catgut is used; for the suturing of the aponeurosis of the external oblique and of the skin, medium-sized catgut.

My objections to silk are, that it is difficult to thoroughly cleanse it, and even if the silk itself has been rendered aseptic, it affords an excellent material for the growth and development of micro-organisms, if, by mishap or ill-fortune, any have gained access to the wound. I have known silk sutures discharged from the deep parts many weeks after the healing of a wound, and no one cares to introduce a continuous silk suture deep down in an operation wound. Further, I think it

unnecessary to make use of a material which remains so long unchanged as silk is justly assumed to do. The only use of the sutures, so far as I understand them, is to keep the various structures in place until they are fixed there by adhesions; and this process, I imagine, takes place within a fortnight in wounds which heal by the first intention.

Treatment of Omentum and Sac.—Two questions arise during the course of nearly all these operations: what is to be done with the omentum, and how far up must the sac be removed? To the first of these my reply is, that not only is it desirable to remove the whole of the omentum which is found in the interior of the sac, but to draw down and remove as much of it as can be drawn down without undue traction on its attachment. The weight of such a mass of omentum is very considerable, and, if it hangs low, is likely to add much to the danger of recurrence. Also, it is a curiously supple and insinuating substance, and I have often been surprised to observe how it "oozes" through tiny openings in the wounded sac during an operation. About a year ago, in the performance of an inguinal colotomy, I left rather too wide a space between two of the sutures in the upper wall of the incision; on the day following the operation, a little piece of omentum was found projecting through this opening, which had been so small as not to have been observed, and, in the course of the next two days, quite a large mass of omentum lay on the abdominal wall above the intestine. No harm resulted, but the readiness with which the omentum can and will make its way through a minute opening impressed me very much, and I could not help thinking that, in case such conditions were left as might make recurrence of hernia possible, the presence of such an insinuating and heavy material must make the likelihood of recurrence much greater. I do not, on the other hand, go so far as M. Lucas-Championnière, who fears the evil influence of omentum so much that he searches for it in the abdomen within the mouth of the sac.

On the second question, I have no doubt. The whole of the sac should be removed, right up to, and even beyond, the point where it joins the parietal omentum. If there are any circumstances which render this very difficult and dangerous, so that it cannot really be accomplished, in such a case the probability of recurrence of the hernia will be very much greater; and, if the twisting operation is performed, the twist should be carried up and the ligature applied as high as when the sac is removed in Bassini's operation.

Drainage and Dressing.—In the lighter cases of operation, I am not in the habit of draining the wound. But if the operation is severe, and there has been disturbance of the deep structures and there is consequently danger of oozing, especially of blood deep down beneath the fascia and muscles, I usually insert a tube of small calibre or one or two pieces of gutta-percha tissue. The wound is dressed with blue gauze, which is soaked in a 1 in 4,000 solution of biniodide of mercury. Over the wet gauze, dry gauze is placed, and over this boracic wool, while outside carbolic gauze and water-proof sheeting is fixed by firmly applied spica bandages.

The scrotum is wound round with narrow strips of iodoform or blue gauze, and the strips of gauze are carried up and fixed to the dressings on the abdomen. This application maintains slight pressure on the testicle and prevents it from hanging down; and thus diminishes the tendency to effusion of fluid into the tunica vaginalis and orchitis, which I have sometimes seen after these operations.

If drainage has been employed, the dressings are changed on the Monday following the Thursday on which the operation is performed, and the drainage is removed. If drainage has not been used, the dressings are not changed until the Monday week, a period of eleven days after the operation. The wound is then probably healed, and the skin sutures or remains of sutures may be removed. A light dressing, two or three pieces of broad plaster and a bandage are applied, to guard against any accidental re-opening of the wound.

Diet.—The diet consists for the first forty-eight hours of very small quantities of liquid at frequent intervals. At the end of two or three days, if the patient is in good condition, a more liberal diet is allowed, and soon soft solid food.

Aperients.—A good deal of difference is observed in the practice of surgeons in regard to the ordering of aperient medicine. I usually order a dose of medicine on the Saturday or Sunday after the Thursday operation, and I do so with the distinct intention of producing movement of the intestines within the abdomen, in the hope that even slight movement of coils of bowel at so early a period, may suffice to prevent adhesions of bowel together, or to the omentum, or the parietal peritoneum. Adhesions may produce kinking of the bowel or some condition which may later lead to internal strangulation or obstruction. In the hope of preventing this, I readily run the slight risks which are incurred by the early administration of an aperient.

Of course it will be understood that the change of dressing, the diet, and the administration of medicine will depend on the condition

of the patient. The description just given is a description of the routine practised in my wards.

Period of Rest.—Patients are kept in bed for three weeks, and in the hospital for a month or five weeks after the operation (Bassini's), and are then sent to the Convalescent Hospital for a month. They are advised not to begin to work, if their work is heavy, for a month after leaving Swanley. But I doubt whether this advice is often followed, so I think it may be assumed that most of the patients return to their work, however heavy, at the end of two months from the operation. After the lighter operations, so long a period of rest is not essential, but after any operation for the radical cure of inguinal hernia, it is very desirable that the patient should not perform heavy work or take violent exercise for two or three months at least.

Wearing of a Truss.—A truss is not ordered. Indeed, I have a great objection to the wearing of any instrument after the operation. If the case is likely to be successful, a truss is not needed, and, if carelessly applied, may do far more harm than good. If, on the other hand, the case is not likely to prove a permanent success, the wearing of a truss is not likely to improve it; and a truss need not be worn until there are symptoms of recurrence of the disease.

The best cases for operation.—We are all probably agreed that the best cases for operation are those of small congenital hernia in young subjects, particularly in young adults; but my operations have not been limited to this class of patients. Of those who are shown to-day, one is a man forty years of age, another is more than sixty-two years old. Both men are actively employed, and the younger of them tells me his work is exceedingly heavy. In truth, while the large majority of my patients have been young men, I have not refused the operation to any patient who desired to undergo it, provided he was a fit subject for an operation. I have not, of course, held out hope to these older patients that the operation would completely cure them, but that it would probably improve their condition, and give them a chance of cure.

Of the success of operations comparatively so young as these larger operations for the radical cure of hernia, we can scarcely yet say when there is no reasonable probability that it may not be successful, although we may form a good idea, from the study of the anatomy and pathology of the disease, when and under what circumstances the operation is likely to be successful. This is a knowledge which can only be acquired by the experience of operations performed under various unpropitious circumstances.

The essential for success is, I believe, in every case the removal or destruction of the sac up to, and even beyond, its junction with the parietal peritoneum.

(Of eleven patients who had been treated by Bassini's method, and who were asked to attend the lecture, seven came. The abdominal wall, in one case, seemed to be a little weak, but the muscles on both sides were soft and flabby in this patient. There was no return of the hernia in any case. The patients were not selected. Those who lived in or close by London were written for, and, with one exception, it was not known whether the operation had or had not been successful. Two of the remaining patients had left their addresses, and the letters were returned. One patient was unable to attend, and I received notice of the death of the fourth patient from causes unconnected with his rupture, which had remained well until his death.)

Diphtheritic Sore Throat.

A Paper read before the Abernethian Society by

J. A. HAYWARD, M.D., M.R.C.P.

PART I.

IT is with no ordinary amount of misgiving that I venture this evening to introduce the discussion on Diphtheritic Sore Throat, for not only is the whole subject of Diphtheria, as a disease, still wrapped in much obscurity, but the relation of its particular manifestation in the throat to that of other affections which closely resemble it, has been, and is still, a source of endless confusion, and hence I must crave your indulgence in my endeavour to gather up and arrange some threads of knowledge from among the tangled web of facts, theories, and speculations. Everyone will agree that it is important from time to time to sum up our knowledge of an obscure disease, and endeavour, in the light of fresh discoveries or theories, to come, if possible, to some definite conclusion as to its nature; for, without at least some definite working hypothesis, how easy it is, when we come to its

treatment, to fall into the quagmire of empiricism, or the still deeper slough of sceptical passivity. Especially is this of importance in regard to Diphtheria, bearing in mind the enormous and increasing mortality due to this disease, and the difficulties which beset a clear understanding of its natural history, causation, diagnosis, and treatment.

I shall endeavour this evening to sum up the facts which are known about Diphtheria, and discuss the relation of the diphtheritic to other forms of sore throat, especially as regards diagnosis; and I cannot help thinking that the subject is peculiarly suitable for discussion at a meeting of this Society, whose members have had ample opportunities for observation and reflection.

It may not be amiss to mention that a severe affection of the fauces, pharynx, and larynx, accompanied by formation of membrane, has been recognised since the earliest days of medicine, and various are the names by which it has been known. From the accurate descriptions of its characters, the symptoms to which it gave rise, and the different ways by which it proved fatal, both in epidemic and sporadic form, very little doubt can be entertained that the disease described corresponded in all particulars to what is known as Diphtheria at the present day.

Doubtless, too, many other varieties of throat affection were included in these descriptions—acute tonsillitis, quinsy, scarlatinal sore throat, syphilis, and even scurvy. Severe manifestations of all were included with true Diphtheria under the name of *cynanche maligna*, malignant angina, gangrenous inflammation of the fauces, and other terms too numerous to mention.

But as Bretonneau aptly remarks in his "Second Memoir on Diphthérie," which was read before the Académie Royale de Médecine in 1821:—"We never fail to discover a familiar object in the most incorrect drawing. Thus we easily perceive the principal features of the diphtheritic affection when we have studied them according to nature, in the descriptions which have reached us, at whatever epoch, and under whatever denomination its ravages have been noticed. Truth makes its way through the prejudices of the age and of the schools, and often the testimony rendered to it has the more value, as it escapes without the consciousness, and contrary to the intention of him who offers it."

For instance, the description given by Aretæus of the Syriac ulcer in the first century after Christ is probably the earliest account we have of Diphtheria. The disease occurred in epidemic form, and the ulcers on the tonsils are described as being covered by a certain concrete "humour," which was white, or purplish, or black in colour, and surrounded by an area of inflammatory redness. There was a tendency of the humours to run together, and not infrequently to spread into the larynx. He adds, moreover, that children suffer most frequently, and gives a graphic description of the mode of death from suffocation, concluding with these lines, which, at the risk of being thought pedantic, I will quote (translation from Boerhaave):—

"*Inspiratio magna est; expiratio vero parva; raucitas adest; vocisque defectio. Hæc signa in pectus ruunt, cum subito in terram collapsis anima deficit.*"

From Aretæus down to the 16th century there is very little recorded that is of value, and nothing that was not already known. Epidemics which were almost certainly diphtheritic in nature occurred during the 17th and 18th centuries in Italy, where the disease was known as the "*morbus strangulatorius*," and in Spain, under the expressive title of "*garrotillo*."

In Great Britain, Fothergill described, in 1733, a membranous affection of the fauces which was probably true Diphtheria.

However, the greatest confusion prevailed, and it is quite evident that in many cases different stages of the same disease were described as distinct clinical entities, and similar appearances in different diseases were classed together. Before the time of Bretonneau these severe forms of sore throat attended by formation of membrane were classed as malignant angina, if the fauces were especially affected; as croup, if the larynx and trachea were involved; as scorbutic gangrene, if the mucous membrane of the mouth and gums suffered.

Bretonneau was the first to make an attempt to classify scientifically these various forms of throat affection.

Following Laennec, he based his classification on anatomical appearances, and declared his belief that scorbutic gangrene of the gums, croup, and malignant angina were only one and the same form of phlegmasia, as he termed it; that this phlegmasia was a morbid affection, *sui generis*, and could be distinguished by its characters and course from other phlegmasiæ; and he finally, at the end of his third memoir, describes the distinctive characters of the different forms of angina. He divided them into catarrhal angina, tonsillar angina, mercurial membranous angina, membranous angina, scarlatinal angina, and diphtheritic angina, or, as he termed it, diphthérie.

The following is his description of the appearances in diphthérie:—"Redness and tumefaction of one of the tonsils, rarely of both;

erratic fever generally and lightly marked; some white spots are soon discovered on the surface of the swollen tonsil. These spots, which are more or less numerous, are due to the formation of a pellicular, lichenoid exudation, which falls off spontaneously, and is easily detached. There is considerable enlargement of the glands of the neck. From the beginning this enlargement is marked by its disproportion with the extent and intensity of the inflammation of the mucous surfaces. The deglutition is not very painful, and it becomes less and less so.

"The tumefaction of the tonsil which has become first affected augments, and a redness of a very variable extent circumscribes the exudation, which is sometimes rapidly extended to the velum palati, the uvula, pharynx, and the tonsil of the opposite side.

"After this sudden extension the progress of the diphtheritic fibrinous inflammation most frequently remains temporarily suspended. The intumescence of the lymphatic glands either diminishes or does not continue to increase. There is no fever—or hardly any.

"After a more or less prolonged absence of the symptoms for a few days, or for a few hours, the cough begins, which is either dry or accompanied by a frothy expectoration. It soon becomes hoarse, and indicates the first symptoms of the propagation of the diphtheritic inflammation into the air passages."

In the diagnosis from the anatomical appearances of the membrane, Bretonneau and Empis, who wrote in 1850, laid stress on the coherence and colour of the membranes; the method by which it commenced as a *thin serous exudation* from the mucous membrane; the ulceration under the surface; the tendency to spread to the larynx and nares, and to infect sore places over the body generally; its invading power, not remaining localised as in scarlatina and other affections. A good deal of stress was laid by them upon the method, by which the membrane commenced to be formed. My own experience is that both when the membrane is extending over the mucous membrane or when it reforms after a piece has been detached, it begins more like a very thin greyish-white filmy transformation of the surface, often quite dry, and certainly not like an exudation. I hope this point will receive notice in the discussion.

In scarlatina, they pointed out that the pseudo-membrane began as a number of whitish spots of exudation on the tonsils, and afterwards became confluent; it generally remained localised; it showed no tendency to spread to the larynx or infect distant parts of the body; the membrane was detachable, and left no ulcerated surface; it was not coherent, and could not be peeled off as a distinct membrane.

They also pointed out, in these two diseases, differences as regards the enlargement of the glands of the neck, the constitutional symptoms, complications and sequelæ, and mode of death in fatal cases; and, in fact, to their description there is little we can add at the present day of the distinctive characters of Diphtheria, with the exception of the albuminuria which so often occurs, and the subsequent paralysis.

To Bretonneau then is due the credit of having pointed out the several characteristics which constitute Diphtheria as a distinct specific disease.

The tendency of the profession since Bretonneau's Memoir has been to include other inflammatory affections of the fauces accompanied by formation of membrane as diphtheritic in nature: the term having this advantage, that used in the sense in which it is so often employed it forms a convenient loophole of escape from a definite diagnosis.

Indeed, a double significance now attaches to the term "diphtheritic" according as it is used in a clinical sense to mean of or pertaining to the disease called Diphtheria, or in a pathological sense to characterise a particular variety of inflammation of mucous membranes in general, and not necessarily in any way connected with true Diphtheria.

Virchow classified inflammatory affections of mucous membranes into the catarrhal, croupous, and diphtheritic varieties.

Now both in croupous and diphtheritic inflammation a so-called false membrane is formed.

In the former, the chief distinguishing feature is that the membrane is made up of coagulable exudation, which is collected on the surface of the epithelium and there forms an uniform layer, which can be readily stripped off from the inflamed mucous membrane underneath. When separated it does not leave an ulcerated surface, and the epithelium only suffers damage in its more superficial layers.

In diphtheritic inflammation there is an actual coagulative necrosis of the epithelium, and even of the superficial layers of the mucosa, the affected tissue dying, as it were, *in situ*. The membrane is made up of the altered tissue elements with a fibrinous coagulum arranged in a more or less reticulated manner, and containing in its meshes the altered epithelial cells, and in the deeper layers abundant leucocytes. When separated a raw surface partially or completely denuded of its epithelium is left underneath.

It is well recognised that the occurrence of these two varieties of membrane depends to a great extent on the particular structure of the mucous membrane affected. Thus the croupous form is usually recognised in the larynx and trachea where the epithelial cells are columnar in form and where there is in addition a thick basement membrane. The diphtheritic variety is most commonly seen in the mouth and pharynx, where there is a thick layer of squamous epithelium. In fact, it is common in a case of pharyngeal diphtheria which has extended to the larynx and trachea, to find all varieties of the inflammatory process as we proceed from the mouth and pharynx to the trachea and smaller bronchi. In the latter, indeed, the appearances are identical with capillary bronchitis.

Now, is there ever a true croupous inflammation of the fauces and pharynx? Whether the follicular exudation, which is so often seen in acute tonsillitis and in the scarlatinal throat, and consisting of coagulated exudation mixed with epithelial cells and pus corpuscles, should be called croupous I will leave to a more experienced pathologist to say; fibrinous would be a preferable term, as it involves no sense of connection with the clinical term croup.

Again, do we ever meet with a true diphtheritic (used in its pathological sense) inflammation of the larynx and trachea, a necrotic transformation of the epithelium and superficial mucosa, firmly adherent and incorporated with the underlying tissues? Such cases, I think, certainly are rare, and such are not the appearances which are seen most commonly in the post-mortem room when the membrane is found loose, detachable, and often breaking down.

Yet in many cases the thick laminated casts which are coughed up, their coherence, the stippled appearance of their external surface where the membrane has formed deeply around the mouths of the glands, suggest that the process has been diphtheritic rather than croupous.

Have we always, then, in the disease Diphtheria this diphtheritic form of inflammation?

Most assuredly we have not. Over and over again in the epidemic and sporadic form has it been proved that not only may sore throats, which resemble those seen in acute follicular tonsillitis, be truly diphtheritic (used in its clinical sense) in nature, but that given an epidemic, it is impossible to discriminate between mild forms which may prove to be infective and those that are not so.

Again, sometimes in scarlatina a membrane is seen on the tonsils, extending on to the pillars of the fauces or the arch of the palate, which resembles in all particulars the membrane which is seen in genuine Diphtheria.

True! Diphtheria is often a concurrent affection with scarlatina, but almost always occurs later in the course of the disease, but in the early stage of scarlatina, and in the cases of so-called scarlatina anginosa, the appearance of the throat may be indistinguishable from genuine Diphtheria.

Again, it is often impossible, from the appearance of the fauces, to give a clean bill of health as regards diphtheria in that ill-defined affection, hospital sore throat, which occurs so frequently in those who are run down in health when they are exposed to impure air, foul smells, and other insanitary conditions, forming, as it were, a kind of pathological barometer, which gives us warning of the contamination of our environment when it shows itself in the overworked house-physician, the austere sister, the patient and studious clerk, or the long-suffering probationer.

Again, there is no reason to doubt the evidence of those who have seen the formation of false membranes in the throat and in the larynx, as the result of the contact of boiling water, and of various chemical irritants, membrane which in appearance was exactly like that formed in Diphtheria.

An interesting case is recorded in the Report of the Committee appointed by the Medico-Chirurgical Society to investigate the relations of Diphtheria and Croup, where membrane formed in the fauces and pharynx as the result of swallowing a quantity of eau-de-cologne, and was identical in macroscopical and microscopical appearances with genuine diphtheritic membrane.

Indeed, this Committee, after examining numerous cases, and carefully weighing the evidence, reported as follows:—"The similarity of the appearance, relations, and mode of formation of the false membrane under the various conditions in which it is found, lead to the belief that if Diphtheria is a distinct and well-defined specific disease, the power of production of false membrane in the larynx and trachea is not peculiar to it, but that its poison shares the power of giving rise to it with other poisons and irritants, and that its distinctive characters must be sought, not in the presence of false membrane, but either in some peculiar characters of that membrane or in other and independent conditions. In fact, it appears to us that the formation of false membrane in the larynx and trachea is merely a mode of reaction of the mucous membrane which may be set up by various conditions."

The late Dr. Hilton Fagge, who formed one of the members of this Committee, also has expressed his opinion elsewhere, that the "definition of Diphtheria as a disease must rest, not on the histology of the exudation, but on its pathology, and the symptoms to which it gives rise; in other words, less on anatomical than on physiological characteristics."

In what light, then, are we to regard these inflammatory affections of the mucous membranes, and what are the factors which are concerned in their production?

In the first place, it is necessary to have an agent in the production of the inflammatory process, whether mechanical, physical, chemical, or biological, and in the next place the result of its action may be modified according to the particular way in which it is employed, and the particular locality affected, its intensity, and lastly, on what may be termed, for want of a better word, the personal equation of the tissues themselves, which will include partial or complete susceptibility or immunity.

It is not to be wondered at, then, that specific affections of the fauces and pharynx give rise to such puzzling clinical pictures. Unfortunately their mucous membrane seems to afford special advantages for the growth and development of certain micro-organisms which have ready means of access in the air inhaled, and in articles of diet, and, in addition, we know how often their resistance to adverse influences is weakened by chronic inflammatory changes, whether the result of inherited predisposition, of frequently-recurring catarrhs or other forms of irritation. And, moreover, present in these mucous membranes are areas of lymphatic tissue, often actually reaching the surface, and uncovered by epithelium—a form of tissue which seems to be peculiarly liable to be seized upon by micro-organisms as suitable for their growth and development, often unprotected as these areas are by a covering of epithelium—and as in the tonsils forming crypts and recesses which afford a secure lodging for the peripatetic microbe, and, often as not, exhibiting a rate of growth in excess of their vitality.

It seems clear, then, that in the past, the confusion which arose as regards these inflammatory affections of the fauces, pharynx, and upper air passages, was due to a mistake in the conception that each variety of inflammation, to say nothing of the gradations by which they shade off one into the other, was pathognomonic of a particular disease.

Hence the terms, "catarrhal," "croupous," "diphtheritic," terms which, literally, have only a pathological significance, but which have become so polarized, as Oliver Wendell Holmes would say, by sheer tradition and association of ideas that they have come to represent clinical entities—catarrh, croup, diphtheria—and it is with difficulty that we can disabuse our minds of the particular meaning which has been handed down attached to them.

But, as I have indicated above, the poison generated in diphtheria may be associated with the catarrhal, croupous, or diphtheritic, or even gangrenous form of inflammation, according to its lesser or greater intensity, the site of its action, and the susceptibility of the tissues.

Thus we see that the characters of Diphtheria of the fauces and pharynx as laid down by Bretonneau were too exclusive, but it by no means detracts from the great merit which is due to him for having recognised Diphtheria as a distinct specific disease, and, indeed, in the majority of cases true Diphtheria of the throat does present all those characteristics which he so ably pointed out, and in these cases the diagnosis is not difficult.

Take a typical case as seen in a child or young adult, with a history of sore throat which has generally lasted at least two or three days, or the onset of which may have been quite insidious, we may notice at a glance that the patient is seriously ill. The face is pale, and anxious, and worn, there is great muscular prostration, complete loss of appetite, and, possibly, but not always, difficulty in swallowing. There is not the acute onset so constant in scarlatina, nor is the fever high; sometimes subnormal with cold extremities, a blue tinge about lips and eyelids. The pulse may be hardly perceptible; there is no rash on the body; sordes are present on the lips; the breath is foul; the tongue furred; there may be a thin offensive discharge from the nares; but the constitutional symptoms vary exceedingly, and many types are seen in the disease.

On inspecting the throat, a white or yellowish membrane is seen adhering to the tonsil, on one or both sides; it often extends on to the arch of the fauces, or the uvula, or the wall of the pharynx. It is thick, coherent, and adherent to the parts underneath, and if an attempt is made to detach it, it leaves an excoriated surface, or it may be so adherent that it is impossible to get it away. It is generally raised somewhat above the surrounding mucous membrane, which itself varies in appearance, but is generally swollen, redder than normal, dry, and often covered with tenacious mucus.

The glands on one or both sides are enlarged, hard, and tender.

Albumen is often present in the urine in considerable quantity. The membrane is reproduced if it has been torn away, and in many cases it tends to spread into the nares or the larynx.

Now in such a case there is no difficulty in the diagnosis, but it is made not only on the anatomical appearances of the throat affection, but is confirmed by the course, symptoms, and characteristics of the disease itself.

But in many cases it is quite impossible to arrive on the first occasion at a definite opinion, and the puzzled physician must wait the course of events to throw some light on an obscure case, or confess his ignorance and invoke some beneficent deity who will aid him in his dilemma. In this case the *deus ex machina* comes in the form of the bacteriologist.

Discovery of Bacillus.—Before 1875, though Diphtheria was known to be a specific infectious disease, yet nothing had been ascertained as to the nature of the specific infectious poison.

No special micro-organisms could be found during life in the blood, or after death in the tissues. Locally, in the throat, numbers could be found, but none of these were so constant, or, if constant, could be proved to be the *vera causa* of the disease.

In 1875 Klebs discovered a bacillus which subsequent researches have proved beyond doubt to be the true cause of Diphtheria. Other observers previously, on insufficient grounds, had attributed the disease to various micrococci which can always be found without difficulty in the membrane; but the crucial test of separating a pure cultivation, producing from this the disease in animals, and recovering again the same organism from their bodies after death in pure cultivation had failed in all cases.

Klebs declared that his bacillus was the specific organism. It was found, he stated, almost constantly in the superficial layers of the membrane, together with numerous other micro-organisms. Cultivations of this organism when injected into guinea pigs gave rise to sloughing at the seat of inoculation, and many of his experimental animals died with symptoms of acute poisoning.

His great difficulty was the separation of pure cultivations with the imperfect methods then in vogue, and his results were so inconstant and ambiguous that no definite conclusions could be drawn from his experiments.

Löffler was the first to isolate the bacillus by using dilute emulsions of diphtheritic membrane, and cultivating the organisms on blood serum. He found that he could obtain isolated colonies by this method of the diphtheria bacillus, which outstripped in growth on this nutrient medium the other micro-organisms which were present. He found that it grew best at a temperature of about 39° C. on blood serum, and that it would also grow on agar and in beef broth; but he failed to grow it on gelatine.

Working with pure cultivations he succeeded in producing a quickly fatal disease in rabbits, guinea pigs, and pigeons, by inoculating pure cultures on the surfaces of mucous membrane which had been previously abraded.

By injecting pure cultures into guinea pigs subcutaneously, a localised oedematous swelling was produced at the seat of inoculation; the animals became seriously ill, refused food, and generally died within twenty-four to forty-eight hours with depression of bodily temperature and great muscular weakness.

Post-mortem.—No bacilli could be found in the internal organs. In some of the cases reported they were recovered from the local tumour, and in cases when smaller doses were used, and the animal lived for several days, fatty degeneration of the heart, liver, and kidneys was observed.

Löffler also pointed out another fact, that a bacillus indistinguishable from that of diphtheria morphologically and in its mode of growth, could often be found on the tonsils and pharyngeal mucous membrane of children and adults in perfect health. To this he gave the name of the pseudo-diphtheria bacillus. Opinions were now divided as to whether this was really a distinct organism, or whether it was the essential bacillus which was harmless for evil when in contact with the unaltered mucous membrane, but which exhibited its pathogenic properties when it could find suitable soil on a surface damaged by inflammation or other cause, special stress being laid on some breach of surface from denudation of the epithelium.

There are obvious difficulties in the acceptance of such a view. It is hard to imagine that such a sword of Damocles could be hanging over the heads, or rather suspended from the palates, of seemingly healthy individuals; and, as Klein has pointed out, if the absence of epithelium is the organism's opportunity, such is never lacking where areas of lymphatic tissue in the tonsils and elsewhere reach the surface. And, moreover, when the physiological relations of the tonsils are altered in the chronic hyperphasia so common in children, we should expect that they would invariably suffer from Diphtheria.

A priori reasoning, then, would seem to negative the view that the

bacillus found on healthy mucous membranes can be identical with the bacillus diphtheriae; and Klein not long ago pointed out distinguishing features between the two, when grown on artificial media, so that in all probability the two organisms are quite distinct.

Roux and Yersin confirmed Löffler's experiments. Moreover, they pointed out the important fact that broth cultures, which had been passed through a Chamberland's filter, and freed from the bacilli, as proved by microscopic and culture tests, were capable of producing the same effects, when injected into animals, as the injection of the broth cultures containing the bacilli, and, moreover, if small doses were used, and the injections repeated, characteristic diphtheritic paralysis ensued; and they also separated from these broth cultures a small amount of a toxic albumose which possessed the poisonous properties of the broth cultures in a more concentrated form. The bacillus itself is a straight or slightly-curved rod-shaped organism, presenting as a rule an enlargement at one extremity, so that it is more or less club-shaped; sometimes dumb-bell forms are seen.

It is non-motile, it grows rather slowly on gelatine, at a temperature of 20° C. without liquefaction and, in streak culture appears in from 3 to 4 days as a number of separate minute greyish white clots, not unlike the growth of streptococcus pyogenes. When grown on agar at a temperature of 39° C. it appears within 48 hours, also as a number of small greyish white colonies, which quickly coalesce into a continuous streak. If an isolated colony is watched from day to day it is seen to spread out at the periphery, the centre remaining thicker and more opaque, and it reaches its limit of growth in a week or ten days. On serum its growth is rapid, and at a temperature of 39° C. is recognisable at the end of 24 hours. On hydrocele fluid, which I have used largely in making cultivations, the earliest growth appears in 24 hours, and the colonies are whiter and more opaque than on other nutrient media.

One very characteristic feature of growth is the different appearance which the bacillus presents in cultures more than a few days old. So-called involution forms are observed, the bacillus is often elongated and thread-like, the protoplasm becomes segregated into minute clumps and dots, so that without staining and the use of an oil immersion it might be mistaken for a short streptococcus, and the club at one end becomes enormously enlarged. It grows in alkaline beef broth, which quickly becomes cloudy, but presents no film on the surface; less readily if the broth is acid; also readily in milk. They are killed by a moist temperature of 60° C.

If diphtheritic membrane is dried slowly and kept for 5 or 6 months, the bacilli are still said to be capable of growth if inoculated on a suitable nutrient medium, but they lose in great measure their pathogenic properties. Under no condition have spores been observed, and it is also stated that the presence of combined air and sunlight has an inhibitory effect on its growth and virulence. The bacillus stains readily with aniline dyes. Guinea pigs, rabbits, cats, dogs, pigeons, sheep, and cows are susceptible, but rats and mice are immune.

The bacilli are found throughout the membrane, but not in the tissues of the mucous membrane, or in the internal organs. Klein states that the virulence depends in great measure on the nature of the nutrient medium on which they have been grown. Thus on agar-agar their pathogenic properties rapidly decline, but when grown on gelatine they are retained for a longer period.

To obtain the Bacilli from the Membrane.—The method which I have employed with the greatest amount of success is to pick off a piece of membrane from the fauces with sterilized forceps, and immediately transfer it to a tube containing sterilized salt solution. If a distinct piece cannot be detached, which is often the case, a small piece of sterile cotton wool may be wound round the forceps and smeared over the surface of the membrane. In one case in which I obtained an abundant growth of the bacillus I inoculated the tubes direct from the throat, merely touching the surface of the membrane with the platinum needle. If a piece of membrane has been obtained, it should be thoroughly washed with several relays of sterile salt solution, by allowing it to sink to the bottom of the tube, then decanting the fluid off in a vessel containing an efficient antiseptic, then pouring in a fresh amount of the salt solution and shaking.

After five or six washings, about half an inch of fluid is allowed to remain at the bottom of the tube, and with the membrane this is poured out into a sterilized watch-glass, and cut up with sterilized scissors into small pieces. One of these pieces is then taken up with the loop of platinum wire, and smeared over the surface of agar, serum, or hydrocele fluid. From the surface a cultivation is made in a second tube, and so on to three or four tubes. In this way the number of organisms is diminished in each tube. Finally, the tubes are incubated at a temperature of 39° C. I have certainly had less trouble in separating the bacillus in this way than by making plate cultivations on agar or gelatine.

Another piece of the membrane is taken up on the wire, the excess of fluid drained off on blotting-paper, and the membrane smeared over the surface of a cover glass. This is then dried, and placed in acetic acid, 1-3, to dissolve the mucus, then thoroughly washed, dried again, and placed in Löffler's blue or methyl violet, and allowed to remain for about half an hour.

In this way the bacillus may with good fortune be recognised as a probability, but I have never felt certain till the cultivations confirmed the result. Most skilled bacteriologists declare that they seldom fail to obtain pure cultivations, in cases where they have recognised the bacillus, by staining direct from the membrane.

The greatest difficulty which I have found is in separating the bacillus from the crowds of other micro-organisms also found in the membrane, chief among which are the staphylococcus aureus and albus, and varieties of streptococcus or diplococcus. Hydrocele fluid I have most certainly found to be a very useful nutrient medium. After ensuring that it has been obtained sterile by keeping the fluid in the warm chamber for several days, it is solidified by raising the temperature to 69° or 70° C.; at this point the fluid soon solidifies, forming a greenish, semi-translucent, solid medium. The cause of this solidification I do not know. If raised to a higher temperature the albumen is coagulated and thrown down in opaque flakes. The special use of hydrocele fluid lies in the fact that many of the other micro-organisms do not grow at all on this medium, staphylococcus aureus and albus in many cases not putting in an appearance, when they were at the same time crowding out the diphtheria bacillus on agar tubes which had been prepared at the same time and in the same manner.

Dr. Klein tells me that he finds a variety of organisms fail to grow on hydrocele fluid, and possibly this may serve to explain a fact which I have noticed, that I have never seen a hydrocele suppurate after tapping. I should be glad to hear this evening what has been the experience of others in this respect.

On serum the bacillus grows rather faster than on hydrocele fluid, but again is crowded out by other micro-organisms. It is not so easily obtained, and requires greater care in its preparation.

During the last three or four months I have examined bacteriologically membranes from the throat in nine cases of suspected diphtheria; in five of these I succeeded in growing pure cultivations of the bacillus diphtheria. In three cases I examined the membrane coughed up in tracheotomy cases, and was successful in two cases. In two cases from membrane from the epiglottis, obtained from the post-mortem room, bacilli were found in both. In one case, from membrane on the lip of a child who was in Radcliffe, I obtained no bacilli. In one case from membrane on the eyelid of a child who was in Radcliffe, I obtained typical bacilli, but did not get a pure cultivation. In a case recently in the post-mortem room, where membrane was present in the throat, larynx and trachea, and stomach, the bacilli were obtained from the stomach membrane.

I have no doubt that bacilli were present in many of the cases when I failed to find them, and the failure was no doubt due to my lack of skill. Indeed, in two of my cases, the bacilli were discovered merely by chance.

Of course, in regard to diagnosis in these cases, positive evidence of the presence of the bacillus was alone of any value.

(To be continued.)

Appointments.

MR. GEORGE HEATON, M.A., M.B., F.R.C.S., to be Honorary Surgeon to the General Hospital, Birmingham.

DR. CECIL YATES BISS, M.A., M.D. (Cantab.), L.R.C.P., to be Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

MR. R. C. BAILEY, M.S., F.R.C.S., to be Surgeon to the St. Pancras Dispensary.

MR. H. M. TICKELL, M.B., B.C. (Cantab.), M.R.C.S., L.R.C.P., to be Junior House Surgeon to the Cheltenham General Hospital.

MR. H. E. BATEMAN, M.R.C.S., L.R.C.P., to be Honorary Medical Officer to the York Dispensary.

DR. HERBERT WILLIAMS, M.D. (Lond.), D.P.H. (Cantab.), to be Medical Officer to the Isolation Hospital of the Port of London Sanitary Authority, at Denton, Gravesend.

The Forthcoming Centenary of the Abernethian Society.

THE history of debating societies has yet to be written, and it will well repay perusal. The great burst of Parliamentary eloquence which marked the first thirty years of the reign of George III. seems to have led to the formation of innumerable debating clubs in London and in the Universities of Oxford and Cambridge. The love of dialectics thus attained was manifested in many ways. It led, in London, to the formation of those reactionary clubs which at first favoured the principles of the French Revolution. In the Universities the individual clubs gradually became fused into the two great debating societies or unions which have been the nursing mothers of those who were to attain the highest positions at the bar and in the senate. But in spite of the fusion, a few still survive in the different colleges in the form of debating and essay societies, whilst others, like the Decade Society of Balliol, have gained a world-wide renown from the brilliant careers of many of their members.

Each hospital in London originally had a debating society attached to its medical school. Some of these societies have died, some have become merged into more flourishing bodies of later origin, some have proved themselves the parents of great scientific societies, whilst yet others have remained very much in their original condition, promoting among students personal research, careful study, and fair discussions. The Abernethian Society, is perhaps, the highest and the best type, as it is certainly the most flourishing of this latter class.

The hospital societies have done very much for the medical student. They have taught him to speak—a gift which rarely comes naturally to an Englishman—and they have thereby fitted him to perform those public duties which, as members of the body politic, each is called upon to perform. It may be as the guiding spirit of the village in which he practises, as mayor of his county town, as a member of the bench of magistrates, or, perchance, in the still more exalted position as an office-bearer in one of those old and world-renowned Corporations in which it is not unusual to hear the highest rhetorical skill combined with a depth of knowledge and an impartiality of judgment which at once marks us members of the greatest of the learned professions.

The idea of forming a scientific society in connection with a medical school appears to have started in the hospitals of Guy and St. Thomas, then united and situated side by side in the Borough, almost on the site of what is now the London Bridge railway station. There, in 1771, the Physical Society was inaugurated. It had a long and glorious career, numbering amongst its members most o

the distinguished physicians and surgeons who made and maintained the reputation of the two great Borough hospitals during the first half of this century. It died in 1852, but its traditions are ably carried on by the Pupils' Physical Society at Guy's Hospital, and by the Medical and Physical Society, established in 1820 at St. Thomas's Hospital. The Middlesex Hospital Medical Society was founded in 1774, and it still flourishes. In 1795 the Abernethian Society held its first meetings under the name of the Medical and Philosophical Society, with John Abernethy, the assistant-surgeon to the hospital, as its founder and one of its first presidents. At the beginning of the present century the Westminster Medical Society began to hold its meetings. Its membership was originally confined to the students of the Great Windmill Street School of Medicine, where Wilson lectured and Brodie demonstrated. The society held its meetings first in Sackville Street, and then in Exeter Hall. It afterwards migrated to the London Hospital, but it has long ceased to exist as a separate body. The University College Medical Society was founded in 1828, the King's College Medical Society in 1833, that at St. Mary's in 1866, and the London Hospital Medical Society as lately as 1873.

The Middlesex Hospital Medical Society has alone been able to celebrate its centenary; the Abernethian will do so next year. From the very nature of the event we can none of us hope to see the bi-centenary of our Society, though we are certain that it will in due course be held. It behoves us, therefore, to take advantage of the present opportunity, not with too lavish a hand, however—*subeunt morbi tristisque senectus*—and it may happen to us, as it has happened to our fellow societies, to feel the pinch of poverty, so that we may be glad of a small reserve "when the evil days come upon us, and when the years draw nigh, when we shall say we have no pleasure in them."

The question of a fitting mode in which to celebrate the Abernethian Centenary has already engaged the attention of the officers of the Society. They are so able that we may well await their decision with confidence, feeling assured that what they do will be well done, and in the best interests of the Society. Whatever steps are taken, however, to celebrate the Centenary, whether by a conversation or by some other form of festivity, we ought to have some tangible and permanent memorial of the event. This, perhaps, would best be done by drawing up a short account of the history of the Society, to be issued to each member on his election, that he may know of its past glory. The very interesting article which appeared in the first issue of the Journal over the signature N. M., a signature well known to all who love the antiquities of medicine in general and of our hospital in particular, and a most sure guide to a rare combination of detailed learning with charm of style, shows that there is still abundant material for the drawing

up of such an account. It should not be forgotten, moreover, that in addition to the books mentioned in that article, the Library contains a clearly-written volume in manuscript, giving the most important papers read during the session 1849. In it are articles by Mr. Holden, Mr. Kingdon, Mr. Sharpin, Mr. Humphry, and many others whose life-work has since reflected such credit upon the school in which they received their technical education. There are several good reasons for making this history at once. First, and most important, we have the materials ready to hand. The minute books and reports of societies whose officers change annually are in constant danger of being lost or mislaid. There is no corporation, there is hardly a society in existence in which the *acta* are even tolerably complete, and every year makes it more difficult to fill up the gaps. The occasion of the Centenary is peculiarly appropriate to carry this design into execution. We are, too, at the present time, particularly rich in men who are skilled in medical antiquities. The greater part of the work connected with the history of medicine in England, which has been published recently, has issued from members of our school. We have only to refer to the hospital reports to see how many of the staff have interested themselves in this subject, and it is certain that each or all of these gentlemen would be only too happy to direct anyone who would undertake to collect materials for the history, and would afterwards help him to revise what was written. Would it be possible to enlist the services of him to whom we owe "The Two Foundations of St. Bartholomew's Hospital" and the re-issue of "The Orders and Ordinances for the Better Government of the Hospital of Bartholomew the Lesse"? Dare we aspire to obtain something from the pen of our most honoured alumnus, who early in life discovered the Trichina spiralis in muscle, and, if report speaks correctly, first made known that discovery at a meeting of the Abernethian Society? He, indeed, could tell us more than anyone now living about that portion of medical history which is almost a sealed book, of the lives and actions of the physicians and surgeons of the first thirty years of this century, when medical journals hardly existed and obituary notices were not written. He might thus, in his vigorous old age, fittingly associate himself with the scenes of his youth, and confer a lasting benefit upon the Abernethian Society by once again associating his name with it upon the one-hundredth anniversary of its foundation.

TO SUBSCRIBERS AND ADVERTISERS.

MESSRS. RICHARDS, GLANVILLE & CO. having ceased to be Publishers and Advertising Agents for the Journal, Subscriptions and all moneys now due, or which in future may become due, for Advertising, should be paid to Mr. H. B. MEAKIN, at the Hospital, until further notice.

Smithfield Market Fifty Years Ago.

SMITHFIELD Cattle Market. Who has not heard of Smithfield—ancient Smithfield? It was exclaimed against as a nuisance for the best part of a century before anything was done to find a remedy. The causes which retained Smithfield as a cattle market so long were potent enough. Smithfield was a cattle market for many centuries; once it was a field outside the city walls; sixty years ago it was a market-place of a most remarkable kind, lying just outside our King Henry VIII's gateway, embedded in the heart of London. For many years the grazier and the butcher were remonstrated with; they were told of the impropriety of driving sheep and bullocks through the crowded streets, exposing passengers to danger, as well as the cattle to injury, and causing detriment to shops. They used to answer that it is all very true, but that Smithfield has a venerable name, and that cattle of all kinds from all parts of the kingdom are brought to it; that the man with a few pounds in his pocket has a chance of suiting himself as well as he who comes to lay out hundreds; that the market-place occupies a kind of centre near the General Post Office and old-established places of business, and is, therefore, very favourably situated for the prompt transaction of business; and that to remove it would run the risk of splitting the *one* universally-supplied market into many. There was some reason for these statements, for mere attachments to old habits, and the mere power of monopoly on the part of the Corporation of the City could not of themselves have prevented the removal of Smithfield Market. Attempts made to establish other cattle markets—for example, in Islington—at first failed; so that Smithfield fifty years ago still continued to be one of the nuisances of London.

Smithfield, fifty years ago, was a cattle market on Mondays and Fridays; and a hay and straw market was held there on Tuesdays, Wednesdays, and Saturdays. The great market day was Monday, or rather, Monday morning. The market-place was a large irregular area enclosed by houses, with St. Bartholomew's Hospital on the south side. It was so arranged that the cattle used to arrive in the outskirts of London on Sunday and towards evening they were driven into the City. There were then two great thoroughfares by which the cattle were brought into London—by the great northern road, over Highgate Hill, and through Islington; and by the eastern inlet to the City, the Whitechapel Road. Cattle began to arrive in Smithfield about nine o'clock on Sunday night and continued to swarm in until towards morning. During the dark nights of winter when the supply of cattle was greatest, and especially about the time of what was called the "Great Market," near the end of the year, the scene in Smithfield was terrific. The drovers were furnished

with torches—for Smithfield was then but poorly lighted by a few dim gas lamps—to enable them to distinguish the marks on the cattle, to put the sheep in the pens, and to form the beasts into droves. The latter were all placed with their heads to the centres of the droves, which was done to enable the purchasers to examine the bodies of the animals more easily. This was not accomplished without very great exertion. The different flocks of sheep had to be kept from mixing with each other, and the bullocks were severely beaten over the nostrils to compel them to form into the drove or circle, and then to stand patiently.

What a wild combination must have been presented on a dark winter's night by the lowing of the beasts, the tremulous cries of the sheep, the barking of the dogs, the rattling of sticks on the heads and bodies of the animals, the shouts of the drovers, and the flashing about of torches! As morning dawned the purchasers began to arrive, and arduous work then began for both buyer and seller. When a bullock had been purchased it had to be separated from the rest of the drove, and the poor animal, not only reluctant to be driven out, but naturally dreading a repetition of the former treatment, thrust its head into every drove it passed, causing showers of blows to descend on it and on every animal it disturbed. Then a flock of sheep, let out of a pen, ran hither and thither, sometimes emerging from the market scattered by a waggon or a coach, and sometimes darting with rapidity in the direction they are not wanted to go. Woe to the novice or the first year's Bart's man who in those days attempted to pass through Smithfield on a wet wintry Monday morning!

The cattle market held on Fridays in Smithfield was of very minor importance when compared with the market on Mondays. But there was a horse market held on the afternoon of Fridays, which, though far from a creditable affair, was exceedingly amusing. The knowing look of the jockeys who were attempting to display their broken-down animals to the best advantage, the fun and laughter going on at one part of Smithfield, where costermongers were wont to assemble to buy and sell their asses, were not without attraction to those who could relish scenes of low drollery and coarse and boisterous mirth. The character of Smithfield as a horse market was not very high. In 1828 it was described as the means of bringing together "all the rogues and thieves within ten miles of London," and that it was "the most abominable scene that can be imagined."

Very little meat was sold by butchers in London on a Monday, hence they preferred the market of live stock to be on Monday rather than on any other day, as they had more time to attend to it. The smaller retail butchers did not buy animals in Smithfield; they preferred to purchase from the carcase butchers, who had their places in different parts of London. These were found principally in Warwick Lane, which runs from Newgate Street to Pater-

noster Row; in Newgate Market, which was hard by; in Leadenhall Market, and in High Street, Aldgate, which is still the butchers' quarter.

In Smithfield, too, there was for seven centuries held annually "St. Bartholomew's Fair." It arose out of the privilege granted in 1133 by royal charter to the Priory to celebrate the feast of St. Bartholomew on the eve of St. Bartholomew's day, on the day itself, and on the day following. Except for certain periods of intermission, this fair was held annually for three days until the City authorities in 1843 prohibited the assembling of shows at all or any kind in Smithfield; but although prohibited in 1843 in Smithfield, it was permitted to be held in a field adjoining New North-road, and called Britannia Field, in Hoxton. This action of the City authorities was the beginning of the end, for the people never regarded the fair at Hoxton in the same light as the old one in Smithfield, and it was found to be impossible to change the sentiments of the people in regard to amusements, or to divert commerce from the time-honoured channels in which it had been wont to flow for centuries. Only two or three fairs were held at the new site, so that the attempt to preserve the fair, but change its meeting place, fell dead from the first.

The market soon followed the fate of the fair, and the opening of the present meat market in 1868 obliterated all traces of the state of things which had existed in Smithfield for seven centuries.

VIATOR.

Notes.

THE East or Surgical Block of wards is now turned out for repairs, redecoration, and cleaning, and the work of construction of the new supplementary Operating Theatre over the staircase, is in full progress. When completed this will make a most valuable addition to the surgical equipment of the hospital. The work is to be finished before October.

MR. ALFRED WILLETT has been elected one of the Vice-Presidents of the Royal College of Surgeons of England.

MR. C. B. LOCKWOOD has been elected one of the Hunterian Professors of Surgery and Pathology at the Royal College of Surgeons. His lectures will be "On Traumatic Infection."

DR. H. D. ROLLESTON has been appointed Goulstonian Lecturer at the Royal College of Physicians for 1895.

DR. S. GEE has been appointed a Censor of the Royal College of Physicians, and amongst those who are to examine at the College Examinations during the next year are:—Dr. Lauder Brunton in *Materia Medica* and Pharmacy, Dr. Lewis Jones in *Elementary Physiology*, Dr. V. D. Harris in *Physiology*, Dr. H. D. Rolleston in *Anatomy*, Dr. Hensley in *Medicine*, Dr. Griffith in *Midwifery*, and Mr. Langton in *Surgery*.

DR. SHORE has been re-appointed Examiner in *Elementary Biology* at the "First Conjoint."

MR. C. B. LOCKWOOD has been re-elected Examiner in *Anatomy* at the Society of Apothecaries.

WE hear that Mr. Henry Power, who for over twenty years has honorably filled the office of Senior Ophthalmic Surgeon, has recently resigned in consequence of having attained the age limit.

It is announced that Dr. Kanthack will give a course of *Elementary Practical Bacteriology*, beginning in October.

HE will also take a class in more advanced *Bacteriology* for the D.P.H., during October, November, and December.

MR. C. P. WHITE, M.R.C.S., L.R.C.P., has been appointed as "The Treasurer's Research Student in Pathology and Bacteriology." We congratulate Mr. White on his election as the first "Research Student." He receives £80 a year, with a grant of £20 for expenses.

MR. W. SELBY, who passed third in the competition for commissions in the Indian Medical Service in February last, has preserved his position after his training at Netley. He gained the Parkes' Memorial Bronze Medal, and was honorably mentioned in the departments of Pathology and Military Medicine.

MR. A. W. F. RUSSELL, who was eighth on entrance, has passed out eighth from Netley.

S. S. F. BLACKMAN, who, after attending the Preliminary Scientific Class, and gaining the Entrance Scholarship in Science, went to St. John's College, Cambridge, where he has had a most successful career, has recently obtained a First Class in the Second Part of the Natural Sciences Tripos at the end of his third year at Cambridge.

V. H. BLACKMAN, who, like his brother, attended the Preliminary Scientific Class, and gained the Open Scholarship in Science, and subsequently entered at St. John's College, Cambridge, has just obtained a First Class in the First Part of the Natural Sciences Tripos.

* * *

A. C. HILL, who, after a year's study at St. Bartholomew's, went to Trinity College, Cambridge, has obtained a First Class in the First Part of the Natural Sciences Tripos.

* * *

W. MYERS has obtained a Second Class in Part II. of the Natural Sciences Tripos. He studied for a year in the Preliminary Scientific Class three years ago.

* * *

We are pleased to hear that St. Bartholomew's had a good representative this year at Bisley. B. W. Holmes, who is so well known in connexion with the Dramatic Society, has gained a prize of £5 in the Alexandra, and £2 in the St. George's Competitions. He was also one of the winning team of the Sir James Whitehead Challenge Cup. Mr. Holmes is a member of the 20th Mx. (Artists') R.V.

* * *

It is, we think, a great pity that the Hospital Rifle Club is no longer active, and we trust that next year an effort will be made to revive it, and that St. Bartholomew's will be once more represented at Bisley in the United Hospitals' Challenge Cup Competition. Perhaps the main reason why the Bart.'s Rifle Team has lately been non-existent is that at present so few men belong to combatant Volunteer corps, and members of a team shooting for the Hospital Cup are required to be "trained volunteers." Time was when the Bart.'s contingent formed no mean body in the "Artists' Corps, and a good time it was too. From personal experience we can assure the junior men that membership, during their student days, of a corps such as the "Artists'" opens the door to an amount of present enjoyment and subsequent pleasurable retrospect that it is difficult to realize.

* * *

THE following men, under new regulations, have passed the Second Conjoint in Anatomy and Physiology, viz.:—H. S. Beadles, H. M. Cruddas, A. W. Dickson, F. L. Provis, H. A. Scholberg, and W. T. Stows.

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IN Anatomy of the Second Conjoint, the following have passed:—D. L. Beath, H. C. P. Bennett, R. P. Brown, J. H. Churchill, G. E. French, F. Harvey, S. Hunt, E. Jones, T. B. Jones, F. E. Price, R. R. Thomas, and H. J. Weston.

* * *

IN Physiology of the Second Conjoint, the following have been successful:—S. B. Atkinson, D. L. Beath, H. C. P. Bennett, R. P. Brown, W. L. Burn, M. A. Cholmeley, J. H. Churchill, W. H. Crossley, G. E. French, R. N. Geach, F. Harvey, G. S. Haynes, S. Hunt, E. Jones, B. E. Laurance, F. E. Price, W. J. Richards, S. Roach, G. Smith, J. F. Swift, R. R. Thomas, A. O. Way, H. J. Weston, and E. W. Woodbridge.

THE following have passed the Primary Examination of the Society of Apothecaries in Anatomy and Physiology:—W. H. Crossley and D. Fletcher. In Anatomy only, A. Hay and F. R. Greenwood have passed; and in Physiology only, G. E. French and C. H. R. Provis have been successful.

* * *

AT the final L.S.A. Examination, J. G. Faber and C. W. Williams have passed in Surgery, J. W. F. Graham has passed in Midwifery, D. D. Brown has passed in Forensic Medicine, and G. J. R. Lowe has passed in Medicine, Forensic Medicine, and Midwifery.

* * *

THE following have passed the First Conjoint in Elementary Anatomy:—A. H. Brewer, P. J. Camidge, J. K. S. Fleming, R. Hatfield, A. G. Higgins, W. E. G. Maltby, J. W. Nunn, F. G. Richards, W. C. B. Smith, and L. E. Whitaker.

* * *

IN Biology, C. G. Watson has passed, and in Elementary Anatomy and Physiology, under old regulations, B. F. Carlyle has passed.

* * *

IN Chemistry and Physics of the First Conjoint, the following Bart.'s men have passed:—A. Farrington, W. H. Goodchild, T. P. Allen, L. A. Baiss, E. N. Berryman, A. H. Brewer, G. C. Campbell, G. E. Cathcart, C. V. Cornish, E. P. Court, D. Davies, C. D. A. Dowman, R. F. Ellery, J. K. S. Fleming, H. Goodman, H. S. Greaves, P. B. Grenfell, H. V. Gwynn, W. G. Hamilton, J. D. Hartley, A. G. Higgins, F. Horridge, F. M. Howell, W. H. Leonard, H. P. Lobb, W. E. G. Maltby, M. M. Martin, S. Mason, I. L. Morris, J. O'Hea, J. Perks, H. J. Pickering, F. G. Richards, E. F. Rose, H. F. Stilwell, G. W. Stone, T. H. Talbot, H. G. Wood-Hill, T. L. Wyndham.

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THE Pass List of the First Conjoint Examination in Materia Medica and Pharmacy contains the following Bart.'s men:—H. Allen, J. J. Blagden, F. Brickwell, F. A. H. Clarke, H. A. Colwell, H. Davies, G. E. Gardiner, E. S. Jones, H. L. Lambert, E. Lloyd, A. R. Mansell, E. C. Morland, A. W. S. Sheldon, W. E. A. Worley, L. A. Baiss, P. C. Barham, C. P. Burd, A. J. McN. Cuddon-Fletcher, T. D. Dawson, E. P. H. Dudley, H. D. Everington, M. H. G. Fell, C. L. Francia, G. E. Gask, H. B. Gibbins, R. Hatfield, R. S. F. Hearn, C. E. Hogan, J. G. F. Hosken, A. R. Kay, W. H. Leonard, H. E. D. Lloyd, W. C. Long, S. A. Millen, S. Neave, H. J. Pickering, R. Raines, J. H. Rhodes, W. T. Rowe, P. W. Rowland, F. W. Sheppard, H. E. Waller, C. G. Watson, E. D. Wortley, A. O. B. Wroughton.

* * *

THE following Bart.'s men having passed the necessary examinations in Medicine, Surgery, and Midwifery, have been admitted as L.R.C.P. and M.R.C.S.:—B. L. G. Skipworth, F. R. Orella, W. d'E. Emery, L. C. P. Phillips, F. C. Poynder, J. W. Haines, C. B. Dobell, F. E. A. Webb, F. T. D. Clindenning, S. Cornish, C. M. Hewer, R. C. J. Stevens, H. S. Byers, R. H. Shepard, J. G. Faber, W. M. Borchers, J. B. Collins, E. L. Pawlett, E. C. Adams, T. W. W. Burgess, A. D. Ducat; and the diploma of M.R.C.S. has been granted to N. Hartford, who has been attending at Bart.'s for the last three months.

* * *

THE following Bart.'s men have been successful at the Intermediate M.B. (London):—T. J. Horder (Honours in Organic Chemistry), A. R. J. Douglas (1st Division), J. H. Churchill, A. W. Dickson, J. A. Dredge, F. A. Field, C. F. Gordon, W. J. Harding, S. Hunt, and H. Weeks. Others have passed, excluding Physiology, viz.:—H. Mundy, J. A. P. Barnes, C. Rivière, S. F. Smith, W. Wrangham;

and in Physiology only:—J. F. Bill, S. L. Box, P. W. Brigstocke, D. H. F. Cowin, L. F. Marks, E. Pratt, and A. B. Tucker, have passed. About one-fourth of the total Pass List consist of St. Bartholomew's men.

* * *

A LARGE and influential Meeting of Matrons of various Hospitals took place in the Board Room of St. Bartholomew's Hospital, on July 13th, to initiate the very important body called the "Council of Matrons." The formation of this Council marks a very important departure in the organization of Nursing in England, for, for the first time, the responsible heads of the Nursing Departments of our Hospitals are brought together in a compact body for discussion of questions of Hospital Nursing. There were present, we hear, about fifty Matrons of Hospitals, including Miss Stewart, of St. Bartholomew's; Miss Mollett, of Southampton; Miss Ridley, Miss Smedley, Miss Suckling; Miss Medill, of St. Mary's; Miss Rogers, of Leicester; Mrs. Bedford Fenwick, and many others. Miss Stewart was voted to the chair, and after an address from her, the Matrons proceeded to pass by-laws, a copy of which we have had the pleasure of seeing. They appear to have been framed in a very sensible and business-like way. Miss Stewart enjoys the honour of having been elected the first "Chairman" of the Matrons' Council.

Amalgamated Clubs.

NEW MEMBERS.

The following students have joined the Amalgamated Clubs during June and July:—

G. F. Briggs.	F. K. Weaver.
S. L. Box.	J. B. Hughes.
D. H. F. Cowin.	J. C. A. Rigby.
S. Coram.	C. A. Robinson.
R. de S. Stawell.	G. A. Auden.
I. C. Lewis.	

SWIMMING CLUB.

SIX WIDTHS' HANDICAP.

Swum on July 2nd.

W. K. Hopkins, 2 secs.	1
T. C. L. Jones, 3 secs.	2

Four others started, L. C. Thorne Thorne being scratch man.

THREE LENGTHS' VARIETY HANDICAP.

The final of this race was decided on July 17th.

A. Hay, 4 secs.	1
W. K. Hopkins, 5 secs.	2

Hay won easily. Codrington (6 secs.) made a close race with Hopkins for second place. Mackintosh, the scratch man, did not finish.

WATER POLO MATCHES.

ST. BART'S HOSPITAL v. CYGNUS S.C.

Played at Fitzroy Baths, on July 4th. Both sides played one short, and the game resulted in a win for the visitors by 1 goal (obtained just before half-time) to nil.

TEAM.

T. C. Litter Jones, Goal.	L. C. Thorne Thorne, Half-back.
W. F. Bennett, } Backs.	F. G. Richards, }
L. Falkener, }	W. J. Codrington, } Forwards.

ST. BART'S HOSPITAL v. TADPOLE S.C.

The Hospital team turning up three short, substitutes were provided, and a friendly game played, which resulted in a draw of 4 goals all.

The remaining fixture, v. Priory S.C. was scratched.

The INTER-HOSPITAL CUP TIES have been postponed until October. The draw for the first round is:—

ST. BARTHOLOMEW'S v. ST. THOMAS'S.
MIDDLESEX v. GUY'S.
UNIVERSITY COLLEGE, a bye.

LAWN TENNIS CLUB.

Since the publication of the last number of the Journal, we have played four matches, all of which have been lost.

On Thursday, June 28th, we played Connaught at Chingford, and lost the match by 7 rubbers to 2, 9 sets to 4, 122 games to 94.

J. C. Padwick lost to C. B. Hunt, 6-3, 4-6, 4-6.
R. F. Baird lost to Newling, 1-6, 4-6.
T. Martin lost to Edmunds, 2-6, 3-6.
R. Waterhouse lost to Agar, 1-6, 6-1, 3-6.
A. Woolcombe lost to Watson, 1-6, 2-6.
H. A. Andrews beat Cruickshank, 4-6, 6-4, 7-5.

J. C. Padwick and T. Martin beat Hunt and Newling, 7-5, 6-4.
R. F. Baird and R. Waterhouse lost to Edmunds and Watson, 6-8, 8-6, 6-8.
A. Woolcombe and H. A. Andrews lost to Agar and Cruickshank, 3-6, 4-6.

On the following Wednesday we played Albermarle at Beckenham. They repeated their performance of May 30th, by again beating us without the loss of a match though Padwick and Martin were within an ace of beating their first pair.

J. C. Padwick } lost to H. N. Alston and R. Carr, 8-6, 5-7, 6-8.
and } lost to B. Mason and S. Mason, 6-4, 3-6, 3-6.
T. Martin } lost to H. Hayman and A. E. Simpson, 4-6, 4-6.
R. F. Baird } lost to Alston and Carr, 3-4 (retired).
and } lost to Mason and Mason, 6-2, 4-6, 1-6.
H. A. Andrews } lost to Hayman and Simpson, 6-4, 3-6, 2-6.
R. Waterhouse } lost to Alston and Carr, 1-6, 1-6.
and } lost to Mason and Mason, 4-6, 4-6.
A. Woolcombe } lost to Hayman and Simpson, 4-6, 3-6.

The result was that we lost the match by 9 rubbers to 0, 16 sets to 4, 119 games to 81.

On Saturday, July 7th, we played Harold L.T.C on their ground at Upper Norwood. The team representing the Hospital on this occasion was abominably weak, and had we had anything like our Match Team we should undoubtedly have won fairly easily. As it was we lost by 6 matches to 3, 14 sets to 7, 111 games to 87.

W. H. Crossley } beat E. Heald and E. B. Milner, 6-3, 6-4.
and } lost to F. Thompson and G. Thompson, 4-6, 2-6.
R. Waterhouse } beat H. Penn and H. C. Rose, 5-7, 6-2, 6-3.
T. Martin } lost to Heald and Milner, 8-6, 6-8, 5-7.
and } beat Thompson and Thompson, 2-6, 7-5, 6-0.
A. Woolcombe } lost to Penn and Rose, 4-6, 3-6.
A. A. Humphrys } lost to Heald and Milner, 1-6, 4-6.
and } lost to Thompson and Thompson, 1-6, 0-6.
A. H. Hayes } lost to Penn and Rose, 4-6, 1-6.

On the evening of Wednesday, July 11th, we journeyed to Surbiton, and being a very weak team, suffered the penalty of being beaten by 7 matches to 1. Darkness preventing the ninth match being played.

W. H. Crossley } beat J. F. Newton and A. B. Tomkins, 2-6, 6-4, 7-5.
and } lost to A. J. McNaird and R. J. McNaird, 4-6, 3-6.
R. Waterhouse } lost to A. B. Carter and H. C. Selle, 6-2, 5-6, 2-6.

T. Martin } lost to Newton and Tomkins, 1-6, 1-6.
and } lost to A. J. and R. J. McNaird, 4-6, 4-6.
A. Woollcombe } lost to Carter and Selle, 2-6 (unfinished).

G. Wedd } lost to Newton and Tomkins, 5-7, 1-6.
and } lost to McNaird and McNaird, 6-4, 4-6, 2-6.
P. Wood } lost to Carter and Selle, 6-4, 6-8, 2-6.

The United Hospital Sports.

THE weather ruled propitious for the 25th Annual Meeting of the United Hospitals, and, though it gave the company present one or two scares, the threatened showers held off, deciding not to interfere with so good an afternoon's sport. The company present was not as numerous as in former years, the threatening weather and the Eton and Harrow match keeping many away; but those present had a capital afternoon, for they would seldom see three better races than the 220 yards, the 440 yards, and the Half-mile, especially the last. Three Hospital records were made, a fact speaking volumes for the character of the racing.

The contest turned out to be a tussle between Bart's and Guy's, no other school being ever seriously in it. We managed to bring back the Shield to the Library, from which it has been missed since 1892, by the substantial majority of six wins and six seconds, to Guy's five wins and four seconds, St. Mary's taking the odd second. Prior to 1892, Bart's held the Shield for seven years in succession.

Guy's were unlucky in having H. T. Bell hampered by a bad foot, and he is to be congratulated on the plucky way he stuck to it. Munro, as usual, ran in excellent form and completely out-classed his rivals in the Mile and Three Miles. In the Bicycle Race, Milbank Smith rode grandly, finishing second, twenty-five yards behind the winner, after losing nearly a lap early in the race.

Of our men, Cornish ran extremely well, his speed in the 220 was a grand sight. Hay and Mason's race for the Half-mile, too, was fine, and it would be no surprise to see either of them get under even time in the future. Smith jumps in a clean, easy style, and should do considerably higher than 5 ft. 6½ in., and Johnston is certainly the best hurdler we have seen at these sports.

With all these men available for coming years Bart's ought to keep the Shield far into the future.

Details:—

100 YARDS CHALLENGE CUP.

(Holder, H. T. Bell, Guy's. Time, 10½ secs. Record, B. B. Conolly, Guy's, 10¼ secs., 1868.)

FINAL HEAT.

H. T. Bell, Guy's.....	1
C. V. Cornish, Bart.'s.....	2
J. Johnston, Bart.'s.....	3

Bell drew away from the others at once, and though Cornish and Johnston made an effort 40 yards from home, he won by a yard. Two feet between second and third. Time, 10½ secs.

HALF-MILE CHALLENGE CUP.

(Holder, P. W. James, Bart.'s; time, 2 min. 2¼ secs. Record, P. W. James, Bart.'s, 2 min. 2 secs., 1893.)

RESULT.

A. Hay, Bart.'s.....	1
S. Mason, Bart.'s.....	2
A. McCullagh, Charing Cross.....	3

Batchelor, of Guy's, was fourth. Hay led soon after the start, closely followed by Batchelor, Mason, and McCullagh. Hay increased his lead in the second lap, and Mason went in front of Batchelor, McCullagh following him. In the last 300 yards all the last three closed up to the leader, and 150 yards from the tape Mason passed Hay; but Hay spurred grandly, and after a most exciting finish, won by 2 yards. McCullagh 8 yards behind Mason. Time, 2 min. 1½ secs. (a Hospital record).

PUTTING THE SHOT.

(Holder, C. Rolfe, London, 35 ft. 2½ in. Record, W. G. West, Bart.'s, 38 ft. 3 in., 1889).

RESULT.

W. F. Bennett, Bart.'s.....	34 ft. 5 in.....	1
J. S. Macintosh, Bart.'s...	34 ft. 4 in.....	2
E. N. Scott, Guy's.....	33 ft. 7 in.....	3

120 YARDS HURDLE RACE.

(Holder, P. R. Lowe, Guy's; time, 17 secs. Record, J. G. Graveley, Guy's, 16¾ secs., 1877.)

FINAL HEAT.

J. Johnston, Bart.'s.....	1
P. R. Lowe, Guy's.....	2
H. N. Coltart, St. George's.....	3

Woodbridge, of Bart.'s, fell at the last hurdle when running third. Lowe and Johnston drew out after the second hurdle. Johnston led at the fifth hurdle, and going strongly to the finish, won by 2 yards. Time, 16¾ secs. (a Hospital record).

220 YARDS.

(Holder, H. T. Bell, Guy's; time, $23\frac{1}{2}$ secs. Record,
H. T. Bell, Guy's, $22\frac{3}{4}$ secs., 1892.)

FINAL HEAT.

C. V. Cornish, Bart.'s.....	1
H. T. Bell, Guy's.....	2
J. V. Worthington, London.....	3

Bell led, closely followed by Cornish and Worthington. Sixty yards from home, Cornish ran right past Bell, and won by 2 yards. Worthington was 4 yards behind Bell. Time, $23\frac{1}{4}$ secs.

HIGH JUMP.

(Holder, H. T. Bell, Guy's; height, 5 ft. 8 in., record).

RESULT.

S. F. Smith, Bart.'s.....	5 ft. $5\frac{1}{2}$ in.....	1
H. T. Bell, Guy's.....	5 ft. $4\frac{1}{2}$ in.....	2
(Smith subsequently jumped 5 ft. $6\frac{1}{2}$ in.)		

THROWING THE HAMMER.

(E. N. Scott, Guy's; distance, 89 ft. 5 in. Record, J. F. Frazer, Bart.'s, 93 ft. 10 in., 1890.)

RESULTS.

E. N. Scott, Guy's.....	85 ft. 1 in.....	1
W. F. Bennett, Bart.'s.....	83 ft.....	2
H. Charles, Middlesex.....	79 ft. 1 in.....	3

ONE MILE CHALLENGE CUP.

(Holder, H. A. Munro, Guy's; time, 4 min. 41 secs.
Record, H. A. Munro, Guy's, 4 min. $34\frac{1}{2}$ secs.)

RESULT.

H. A. Munro, Guy's.....	1
R. C. Leaming, St. Mary's.....	2
F. F. Eleves, Middlesex.....	3

Munro led at the 300 yards' mark, was never headed, and won as he liked by 100 yards. Time, 4 min. $36\frac{3}{4}$ secs.

LONG JUMP.

(Holder, H. T. Bell, Guy's, 20 ft. 8 in. Record, B. C. Green, Bart.'s, 21 ft. 3 in., 1891).

RESULT.

H. T. Bell, Guy's.....	20 ft. 7 in.....	1
J. W. Nunn, Bart's.....	20 ft. 2 in.....	2
C. T. Armson, Middlesex.....	19 ft. 7 in.....	3

QUARTER MILE CHALLENGE CUP.

(Holder, F. S. Batchelor, Guy's; time, $53\frac{1}{2}$ secs. Record,
T. A. Guinness, King's College, $51\frac{1}{2}$ secs.)

FINAL HEAT.

C. V. Cornish, Bart.'s.....	1
S. Mason, Bart.'s.....	2
F. S. Batchelor, Guy's.....	3

A. McCullagh, Charing Cross, was fourth. Cornish was first away, but was passed by Batchelor, whom he caught and passed again at 200 yards. From here to the finish Cornish led, chased home by Mason, who finished 5 yards behind. Batchelor was 4 yards behind Mason. Time, $52\frac{3}{4}$ secs.

THREE MILES CHALLENGE CUP.

(Holder, H. A. Munro, Guy's; time, 15 min. $54\frac{3}{4}$ secs.
Record, H. A. Munro, Guy's, 15 min. $17\frac{1}{2}$ secs.)

RESULT.

H. A. Munro, Guy's.....	1
C. D. Edwards, Guy's.....	2
W. A. McEnery, Guy's.....	3

Munro led after a quarter-mile, and after the half-mile led by 30 yards. He continued to increase his lead, and lapped his opponents at two-and-half miles. He won by 550 yards. Time, 15 min. 16 secs. (a Hospital record).

FIVE MILES BICYCLE RACE.

RESULT.

Austen Wood, Guy's.....	1
H. J. Milbank Smith, Guy's.....	2
A. S. Bruzard, London.....	3

Milbank Smith's coat got entangled in his hind wheel, and he had to dismount to remove it. This lost him nearly a lap and cost him the race, as he could not get on terms with Austen Woods, though he finished only 25 yards behind him. He was heartily applauded for his plucky effort. Time, 15 mins. $24\frac{1}{2}$ secs.

Mrs. Horsley, the wife of the U.H.A.C. President (Mr. H. A. Victor Horsley, F.R.S., F.R.C.S.), distributed the prizes.

Ballads of the Smoking Concert Club.

(Continued.)

"IN THE GLORIOUS DAYS TO COME."

Of the days to come I am going to sing,
Of "Looking Backward"—and that kind of thing,
And of the great joys the millenium will bring
In the glorious days to come.
There'll be no love, no greed, or hate,
We shall all be equal, and all sedate,
And be washed once-a-week at the expense of the State,
In the glorious days to come.
Well, I may have ridiculous taste,
But I'll give you my sentiments free!
That the world just at present is quite good enough,
And no worse than it ought to be.

We shall all be alike, in the same style dressed,
All efforts at culture will be sternly suppressed,
You won't be allowed to know more than the rest,
In the glorious days to come!
If a man any symptom of brain power should show,
They'll trephine him and take out a lobe or so,
They'll whittle him down to the level below,
In the glorious days to come.
Well, I may have ridiculous taste,
But I'll give you my sentiments free!
No Act ever passed can make a fool wise,
For he always a fool will be.

How nice when we all quite equal shall be,
 All have the same breakfast, and dinner, and tea,
 And get whiskey served out once a fortnight free !
 In the glorious days to come.
 There'll be a few taxes, but no more bills,
 And nobody's soap, and nobody's pills,
 Will disfigure the valleys and blot out the hills,
 In the glorious days to come.
 Well, I may have ridiculous taste,
 Of my sentiments this is but one,
 That a few things, perhaps, may be better arranged
 In the glorious days to come.

Some frivolous folk will think it is tame,
 When women and men are dressed the same ;
 And you're known by a number instead of a name,
 In the glorious days to come.
 There'll be no such thing as the wise or great,
 Our corns and hair will be cut by the State,
 We shall all eat out of a common plate,
 In the glorious days to come.
 Well I daresay it's all very well,
 And may seem a nice prospect to some,
 But I'm thankful to say I shall not be alive,
 In the glorious days to come.

F. W. G.

St. Bart.'s Hospital Smoking Concert Club.

(SEASON 1894-95.)

The following dates have been secured for Concerts, which will be held in the French Room, St. James's Restaurant, W.

October 27th.	November 17th.
December 8th.	February 2nd.
	March 9th.

Correspondence.

To the Editor of ST. BARTHOLOMEW'S HOSPITAL JOURNAL.

DEAR SIR,—I am requested by the Dance Committee to inform you that the sum of £15 6s. (fifteen pounds six shillings) has been handed to the Treasurer of the Samaritan Fund of St. Bartholomew's Hospital by Mr. H. J. Waring (Treasurer, Dance Committee). The above sum being the balance of the proceeds of the Dance, held in aid of the Fund, at 77, Harley Street, on May 30th.

I remain, faithfully yours,

D. L. E. BOLTON, *Hon. Sec.*

Awards of Prizes and Scholarships.

We have already announced the names of the winners of the Kirkes, Brackenbury, and Lawrence Scholarships. Since then the results of the competition for the Mathews Scholarship Medal, for the Sir G. Burrows and Skynner Prizes, and for the Shuter Scholarship have been published as follows :—

MATTHEWS DUNCAN MEDAL AND PRIZE.—The Medal was not awarded ; but the Prize was won by L. Phillips.

SIR GEORGE BURROWS' PRIZE.—H. S. Byers.

SKYNNER PRIZE.—H. S. Byers.

SHUTER SCHOLARSHIP.—T. H. Molesworth, S. D. Rowland.

Meeting of the Physiological Society at St. Bartholomew's.



ON Saturday, July 14th, the Physiological Society held a meeting at St. Bartholomew's. This is the first time the Society has honoured us with a visit, and a most successful meeting was held. The proceedings began with tea in the Library at four o'clock, after which the members and visitors assembled in the Physiological Laboratory. Among those present were Dr. Pye-Smith, Dr. Pavy, Dr. Waller, Professor Weir Mitchell of Philadelphia, Professor Blackadder of Montreal, and other physiological savants. Dr. Garrod made a communication on the Coloration of Uric Acid Crystals, and showed several beautiful specimens. Drs. Edkins and Fletcher gave the results of some experiments they have made to determine the part played by the intestinal epithelium in the transformation of carbohydrate into fat. They fed animals on various cereals, and after a given time the animals were killed, and the intestine examined for fat in the epithelium of the villi by the osmic acid method. The summary of their results is that the fat in the epithelium of the villi is in proportion to the amount of fat present in the food. This conclusion is opposed to the views of Dr. Pavy, who believes that carbohydrate is converted into fat by the epithelial cells. In the discussion which followed, Dr. Pavy took part. Dr. Lewis Jones showed an interesting piece of electrical apparatus which he thought might be of service in nerve-muscle physiology. Dr. Kanthack followed with specimens illustrating selective Chemiotaxis, giving a short explanation of them. Dr. Andrewes showed specimens of a Bacterial Pigment which he has succeeded in isolating. His demonstration of the properties of this pigment with chloroform, and its change of colour with alkalis and acids, was much appreciated. After a short communication from Mr. F. Stanley Kent, the meeting adjourned to the Anatomical Theatre, where lantern demonstrations were given by Mr. Kent and Mr. D'Arcy Power. The latter showed a beautiful series of photograph slides exhibiting the results of irritation of normal epithelium, and the production, by this means, of appearances similar to those described by others as the protozoan parasites of cancer. Dr. Klein gave a short account of "Bactericidal Poisons," after which the company dined in the Great Hall of the Hospital. The dinner was in every way a great success, forty-three members and guests being present, and the catering by the College manceple left nothing to be desired. Dr. Klein occupied the chair, and among those present were Dr. Pye-Smith, Mr. Henry Power, Dr. Kanthack, Dr. Copeman, Captain Smith of the Veterinary College, Dr. Starling, Dr. Lauder Brunton, Dr. Norman Moore, Mr. Thomas Smith, Mr. Lockwood, Professor Weir Mitchell, Professor Blackadder, Sir Dyce Duckworth, Dr. Shore, Mr. Langton, and others. After dinner, a vote of thanks to the Treasurer and Governors of the Hospital was passed, and the company separated at nine p.m. We hear on all sides that this was one of the most successful of the meetings of the Society during the past year, and we hope it will become an annual fixture.

Obituary Notes.

DR. HERBERT GOUDE.—We regret that we have to record the death of Dr. Herbert Goude, Resident Surgeon to the Small-Pox and Vaccination Hospital, Highgate, which took place suddenly on July 16th. The suddenness of the fatal attack gave rise to the suspicion that Dr. Goude died from other than natural causes, and in consequence an inquest was held. The medical evidence, however, showed that the cause of death was fatty degeneration of the heart. Dr. Goude was forty-seven years of age, and was a "Bart.'s" man. He took the M.R.C.S. in 1870, and F.R.C.S. (Edinburgh) in 1880.

In 1887 he became M.D. of Durham. Whilst a student, he had a distinguished career, and held the offices of House Surgeon and Midwifery Assistant. He was subsequently House Surgeon to St. Mark's Hospital for Fistula, House Surgeon to the Lock Hospital and Registrar to the National Orthopaedic Hospital. Subsequently he specialised in State Medicine, and held the office of Resident Surgeon at the Highgate Small-Pox Hospital for some years previous to his death.

JOHN CAPORN SMITH, M.R.C.S., L.S.A.—Mr. J. C. Smith died at Great Yarmouth, on July 15th, at the ripe age of eighty-two. Mr. Smith was born at Northampton in 1812. He was educated at the Merchant Taylors' School, and at St. Bartholomew's Hospital. He became M.R.C.S. in 1834, and L.S.A. in 1835. In 1836 he began practice at Great Yarmouth. He was for many years Surgeon to the Great Yarmouth Hospital, and, until last year, was Surgeon to the Great Yarmouth Workhouse, a post which he held for thirty-nine years. He was formerly President of the Norwich Med. Chir. Society and of the East Anglian Branch of the British Medical Association. He had for many years an extensive private practice, and in addition was highly respected. He was senior J.P. for the borough, and an Alderman. He took a prominent part in Freemasonry, having been three times Master of his lodge, and twice Senior Provincial Grand Warden of the Provincial Grand Lodge of Norfolk. In 1886 Mr. Smith celebrated his golden wedding and received many handsome presents from friends, colleagues, and patients. He leaves a widow, one son, and three daughters. The funeral took place on July 19th.

Review.

DISEASES OF THE NOSE AND THROAT, by F. de Haviland Hall, M.D., F.R.C.P. (H. K. Lewis), 1894, cr. 8vo, price 10s. 6d.—This is the latest addition to a series which already includes such excellent books as Lewer's "Diseases of Women," and Steavenson and Lewis Jones' "Medical Electricity." The book contains two coloured plates, and fifty-nine illustrations: the coloured plates represent laryngoscopic views of the larynx and vocal cords during inspiration, and during phonation: they are extremely well done, and, since the parts are named, will be found useful by students who meet with a difficulty in identifying the anatomy of the larynx, as seen in the dissecting room, with that seen with the aid of the laryngoscopic mirror.

The majority of the illustrations are representations of instruments, and, as such, considerably lighten—to the student—the task of reading the book. One hundred and sixty-eight pages are devoted to the nose, accessory sinuses, and naso-pharynx, 137 to the pharynx proper, while 190 are given to the larynx: the author has evidently aimed at the "happy medium" between a "cram book" and a treatise on the subject, and on the whole has succeeded.

The book throughout gives evidence of the expenditure of much care in its production, and is, for a text book, singularly free from dogmatic statements.

The references to other authors are very numerous, and the various views with regard to such questions as the pathology and treatment of chronic atrophic rhinitis and ozæna are given with much fairness, even when opposed to those held by the author. We are surprised to see that the author still supports the view that epistaxis may be "vicarious to menstruation," a view generally regarded in

our own school as a "relic of the middle ages." We conceive the highest product of the study of medicine to be the "general practitioner" (in the true sense of the word), and since such hand-books as these, dealing as they do with special subjects, make it possible for the general student to become familiar with branches of medicine hitherto relegated almost entirely to the specialist, we welcome them, and commend them to the student.

Births.

NUTTALL.—August 4th, at Elm-avenue, Nottingham, the wife of Alfred E. Nuttall, M.A., M.B. (Cantab), of a son.

PAGET.—July 17th, at Stratford, Larawaki, New Zealand, the wife of Tom Lakin Paget, M.R.C.S., L.R.C.P., of a daughter.

TAIT.—July 27th, at Sunnyside Road, Hornsey Lane, N., the wife of H. B. Tait, F.R.C.S., of a son.

Marriages.

ANDERSON-INNES.—July 31st, at the Parish Church, Merton, by the Rev. Sydney Clark, M.A., Chaplain of the Royal Hospital, Chelsea, assisted by the Rev. E. Walpole Warren, D.D., Hugh Kerr Anderson, M.B., son of James Anderson, Frogna Park, Hampstead, to Jessie Mina Innes, daughter of the late Surgeon-General Francis William Innes, M.D., C.B.

BENJAMIN-MORGAN.—July 18th, at Christ Church, Ealing, John Knill Kinsman Benjamin, M.R.C.S., L.R.C.P., of Dorrington, near Shrewsbury, to Alice Sophia, youngest daughter of the late James Hungerford Morgan, of Mangalore, India.

RAWLINSON-ALEXANDER.—July 14th, at the United Presbyterian Church, Lenzie, Dumbartonshire, by the Rev. W. Miller, M.A., Frederick Juland Rawlinson, F.R.C.S. (Eng.), of Stuart House, Bognor, Sussex, younger son of Alfred Rawlinson, of Hurstmead, Eltham, Kent, to Edith Mary, youngest daughter of William Alexander, of Fairview, Lenzie.

SCHOLEFIELD-MARSHALL.—July 12th, at St. John's Church, Blackheath, by the Rev. J. W. Marshall (father of the bride), assisted by the Rev. Canon McCormick and Rev. J. P. Hobson, Robert Ernest Scholefield, M.A., M.B. (Oxon.), youngest son of William Scholefield, Esq., late of Weetwood, Leeds, to Elizabeth Graham, eldest daughter of Rev. W. J. Marshall, vicar of St. John's, Blackheath.

STEEDMAN-NICKOLL.—July 19th, at the Parish Church, Streatham, by the Rev. Canon Nicholl (rector of the parish, and grandfather of the bride), assisted by the Hon. and Rev. G. F. Vane, vicar of High Ercall, Salop, and brother-in-law of the bridegroom, John Francis Steedman, F.R.C.S. (Eng.), second son of the late E. B. Steedman, of High Ercall Hall, to Mary Eveline, eldest daughter of Richard Nicholl, of Exmouth, Devon. No cards. At home Sept. 26th, 27th, 28th.

WARDE GOLDIE.—July 31st, at St. John's Church, Tunbridge Wells, Wilfrid Brougham Warde, M.R.C.S., L.R.C.P., of Knowsley, to Louise Sophie Marie (Lulu), daughter of Lewis Goldie, of 22, Victoria-road, Clapham Common.

WHITE-BROWNRIGG.—July 3rd, at St. Paul's Church, Avenue-road, Regent's Park, by the J. W. Bennett, M.A., vicar, John Arthur Temple White, M.R.C.S., L.R.C.P., of Hatfield Broad Oak, Essex, only son of J. Bramford White, Esq., Civil Service, Trinidad, to Alice Edith, younger daughter of Colonel H. J. Brownrigg, C.B., of 8, Lancaster-terrace, Regent's Park, and grand-daughter of the late Sir Henry Brownrigg, K.C.B., Royal Irish Constabulary. Colonial papers, please copy.

Deaths.

GOUDE.—Suddenly, on July 16th, Herbert Goude, M.D., Resident Medical Officer, Highgate Small Pox Hospital, aged 47.

SMITH.—July 15th, at Great Yarmouth, John Caporn Smith, M.R.C.S., L.S.A., aged 82.

ACKNOWLEDGMENTS.

Guy's Hospital Gazette, London Hospital Gazette, "Post-Nasal Growths," by CHARLES A. PARKER (H. K. Lewis).